



**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

07/26/17

Base Realignment and Closure Division

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

**RE: SELF-IMPLEMENTING CLEANUP AND DISPOSAL § 761.61(a)(3)**

Dear Ms. Bunker:

The purpose of this letter is to fulfill the requirements of 40 Code of Federal Register (CFR) 761.61(a)(3) for written notification of planned excavation and disposal of soil and porous media (concrete) that have been impacted by historic Polychlorinated Biphenyls (PCB) used in the electrical transformers at the former Walter Reed Army Medical Center (WRAMC). This work is planned to be conducted as a Self-Implementing Clean-up action at the abandoned transformer vaults located at Building 1, Building 15 and Building 88 within the former WRAMC, located at 6900 Georgia Ave. NW, Washington, DC. Figures 1 through 4 illustrate the vault locations and investigation data currently available.

The Prime contractor for this work, KEMRON Environmental Services, Inc. (KEMRON), prepared a January 2017 Uniform Federal Policy Quality Assurance Project Plan (QAPP), which pertains to site investigation and remediation. Files incorporated into the QAPP are included on DVD and attached to this correspondence. The QAPP contains the following requirements of the 40 CFR 761.61(a)(3) notification:

- Site background and history, and the nature of the contamination per §761.61(a)(3)(i)(A),
- Field and Laboratory SOPs per §761.61(a)(3)(i)(B),
- QA/QC plan for documenting required cleanup levels, per §761.61(a)(3)(i)(D).

The following provides summary information in response to each regulatory requirement of 40 CFR 761.61(a)(3).

**I) §761.61(a)(3)(i)(A): Nature of contamination.**

As is further detailed in UFP QAPP Worksheet #10, WRAMC, known as Walter Reed General Hospital (WRGH) until 1951, was the U.S. Army's flagship medical center from 1909 to 2011. Located on 113 acres in Washington, D.C., it served more than 150,000 active and retired personnel from all branches of the military.

Since its origins, the WRAMC medical care facility grew from a bed capacity of 80 patients to approximately 5,500 rooms covering more than 28 acres of floor space. WRAMC combined with the National Naval Medical Center at Washington, DC in 2011 to form the tri-service Walter Reed National Military Medical Center (WRNMMC). The former WRAMC closed under BRAC 2005, with a majority of the property transferred to the District of Columbia Local Redevelopment Authority (DC-LRA) in November 2016. Transformers were present at the site as part of the electrical system. Three (3) specific locations are the subject of the scope of work for this PCB cleanup, including former transformer vault locations at Buildings 1, 15 and 88.

Concerns for contamination from PCBs were identified at three transformer vaults at Buildings 1, 15 and 88 based on the site wide electrical system knowledge of WRAMC personnel and site investigations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Army collected wipe samples from the concrete transformer vault floor surfaces at Buildings 15 and 88 to assist in determining if PCBs required further evaluation (Attachment 1). The analytical results of the concrete surface wipe samples indicated PCBs were present. There is a need to remove the concrete transformer vault and the PCB-impacted soil adjacent to the concrete vault at Building 88. Additionally, a specific area of PCB-impacted soil is to be removed at Building 15. Upon completion of soil impact delineation at Building 1, PCB-impacted soils also need to be removed. Vault concrete at Buildings 1 and 88 needs to be sampled to determine how to manage the vaults following their removal. The former transformer vault concrete at Buildings 1 and 88, and any soils impacted with PCBs at concentrations greater than 1 ppm (as determined through soil analytical testing via USEPA Method 8082) are the materials subject to this self-implementing cleanup.

The property in these three locations is scheduled to be transferred to DC-LRA after appropriate PCB cleanup has been completed.

## **II) §761.61(a)(3)(i)(B): Summary of Site Characterization Sampling Procedures and Analytical Results.**

Data Quality Objectives for the KEMRON scope of work were developed and are provided in the UFP QAPP Worksheet #11. Please refer to pages 15-20 of the UFP QAPP, Attachment 2. KEMRON site characterization sampling has been and continues to be implemented in accordance with the sampling design, rationale, locations and methods further detailed in the UFP QAPP, including but not limited to Worksheets 15 through 28. Field and laboratory Standard Operating Procedures (SOPs) also were incorporated into the QAPP, and have been reproduced on CD-ROM within Attachment 2.

Personnel at WRAMC collected a limited initial number and type of samples at Building 1 and Building 88 in 2016, and the results of these samples were shared with

you in three (3) separate pieces of correspondence from the Base Realignment and Closure (BRAC) Division. The correspondence is dated September 13, 2016, and October 6, 2016 (Attachment 1) and provides analytical results of sampling in and adjacent to Buildings 1, 15 and 18 transformer vaults.

On February 22 and 23, 2017, KEMRON conducted an investigation of the PCB soil concentrations around the transformer vaults at Building 88 and Building 1 at the former WRAMC. The investigation consisted of drilling direct push soil borings around the perimeter of each transformer vault and sampling vertical intervals to a depth of 12 feet below land surface (BLS). A total of ten (10) soil borings were drilled and sampled at the Building 1 transformer vault and a total of five (5) borings were drilled and sampled at the Building 88 vault. A total of sixty (60) soil samples were collected and analyzed for PCBs by USEPA Method 8082 in the fifteen (15) soil borings. Figures 2 and 3 provide the results of the 2017 soil sample analysis. Additional site characterization data will be generated under the same procedures as have been conducted by KEMRON to date and consistent with the QAPP.

**III) §761.61(a)(3)(i)(C): Location and Extent of Contaminated Area.**

Figure 1 illustrates the locations of the former transformer vaults at Buildings 1, 15 and 88. Figures 2 through 4 illustrate the locations of the soil samples collected to date, with the analytical results provided on each figure. Table 1 summarizes all soil analytical data collected by KEMRON. The data generated by the Army in 2016 are summarized in Table 2. Please note that the October 6, 2016 correspondence to USEPA inadvertently reported the analytical results for wipe sample X03 incorrectly; this has been corrected in Table 2. The laboratory analytical reports for these data are provided on CD-ROM as Attachment 3.

**IV) §761.61(a)(3)(i)(D): Cleanup Plan**

The UFP QAPP identifies the details of the cleanup plan. The following summarizes the key plan elements identified at §761.61(a)(3)(i)(D).

- a.) Schedule. Please refer to Figure 6 for the projected schedule of the cleanup.
- b.) Disposal Technology and Approach. The porous concrete vaults to be removed by KEMRON will be tested in accordance with the USEPA SOP *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)*, Revision 4, dated May 5, 2011, as specified in the UFP QAPP. Soils are being sampled and analyzed in accordance with the UFP QAPP and USEPA Method 8082. Soil PCB concentrations at or above 50 ppm PCBs are being further delineated through installation and sampling of soil borings for laboratory analysis. Upon delineation of the extent of soils with PCB concentrations  $\geq 50$  ppm, excavation, management and disposal of such soils will be done to isolate the soils that are subject to handling, management and

disposal as TSCA waste. These soils are planned to be transported to and disposed at a permitted TSCA waste disposal facility such as Chemical Waste Management, Model City, NY, or an alternate TSCA approved. If the concrete analytical results, generated in accordance with the sampling specifications of the USEPA SOP, indicate either of the concrete vaults require TSCA management, they will likewise be disposed at this TSCA permitted facility. For those soil and concrete media for which analytical results indicate PCB concentrations <50 ppm, the material will be managed, transported and disposed as non-TSCA waste at Republic Services, Fairfax, VA or another properly permitted municipal waste disposal facility.

Out of the 60 samples collected, two (2) soil samples collected in the 0-2 feet below grade depth interval (sample identifiers B1SB06 and B88SB02) were greater than the TSCA promulgated threshold of 50 ppm. Our upcoming work will complete the delineation of the soil including these 2 locations, to allow excavation, segregation and disposal of the TSCA soil (total PCB concentrations  $\geq 50$  ppm) remediation waste separately from the non-TSCA (< 50 ppm total PCB concentration) soil remediation waste. During this same mobilization, the concrete vault will be removed and destructive core sampling will be conducted in accordance with the May 2011 USEPA *SOP for Sampling Porous Surfaces for PCBs* (Revision 4) as identified in the UFP QAPP. The analytical results from that sampling event will then provide final data to characterize the concrete for off-site disposal. The final destructive core sample data will be used to determine whether the vault must be disposed at a TSCA permitted facility (that is, if the destructive core sample analytical result is  $\geq 50$  ppm total PCBs), or is not subject to regulation as TSCA waste (based on a destructive core sampling analytical result of <50 ppm total PCBs). The PCB remediation waste cleanup standard for WRAMC will be consistent with 40 CFR 761.61(a)(4)(i). We note that the concrete former transformer vault (e.g., porous surface) is not being cleaned up for return to service, but is being removed as part of the remediation waste generated at the site. Therefore, cleanup to the standards of 761.30(p) regarding continued use of the transformer vault, or 761.79(b)(4) regarding decontamination of the concrete vault, are not applicable.

KEMRON has been contracted to remove all PCB soil contamination in excess of 1 ppm where physical limitations do not prevent achieving this unrestricted use standard, remove the existing concrete transformer vaults at Buildings 1 and 88, and replace the former vault areas and soil excavations with clean fill. KEMRON's excavation plan will utilize the delineation soil sample results as an initial guideline for soil excavation. Figures 3 and 4 provide the anticipated extents of the excavation limits. Additional soil delineation sampling will be conducted prior to beginning the excavation phase of this project to refine the

extents of the PCB contamination horizontally and vertically as indicated on the figures. Soil samples will be collected horizontally in 4-foot increments until the sample results are below 1 ppm PCB concentration. All soils with analytical detections in excess of 1 ppm and less than 50 ppm will be removed and disposed of at a permitted off site municipal landfill. Confirmation samples will be collected per the requirements stated in Subpart O: *Verification Sampling of Self-Implementing Cleanup* (§§761.280 -761.298) at both former transformer vaults to demonstrate residual soil PCB concentrations.

Excavation will occur with mechanized equipment at Buildings 1 and 88, while the soil excavation at Building 15 will be performed manually with shovels, etc. due to the risk excavation poses to critical subsurface utilities at this location. Following the planned excavations, gridded sampling will be conducted per Subpart O, with resultant soil samples analyzed for PCB Aroclors by USEPA Method 8082.

All excavated material removed by mechanical means at Buildings 1 and 88 is anticipated to be direct loaded to trucks for off-site transportation and disposal, where feasible. If the soil must remain overnight prior to placement in the container(s), it will be placed on and covered with plastic sheeting that is weighted to protect the soil from wind or rain erosion. The estimated lateral limit of the excavation at Building 1 is approximately four (4) feet beyond the vault wall. The depth of excavation at Building 1 will vary from a minimum of two (2) to a maximum of six (6) feet below grade dependent upon location within the PCB impacted area. Figure 3 depicts the estimated limits of excavation for Building 1 based upon currently available data. Confirmation samples will be collected following excavation to confirm that the cleanup standard of 1 ppm PCBs has been achieved. If sample results contain PCBs in excess of 1 ppm, the area will be over-excavated in one-foot increments and additional confirmatory samples collected and analyzed. All soil containing PCBs in excess of 1 ppm will be removed and disposed, unless subsurface conditions prevent excavation. Conditions which will limit the depth of excavation include encountering bedrock or groundwater, or the presence of underground utilities. For Building 88, the area to be excavated is constrained by the presence of structures and active utilities. The excavation depth will vary from six (6) to ten (10) feet below grade, dependent upon the detected concentration of PCBs in soil. The lateral extent of soil excavation is estimated at a maximum of four (4) feet beyond the vault walls to the north and south. No excavation is planned to the east of the vault and to the west; the excavation will be limited to an approximate two (2) foot width by the presence of the building foundation. Figure 4 presents the planned limits of excavation.

PCB impacted soil will be removed, sampled and disposed of from a prescribed area at Building 15 (Figure 5). The transformer vault will remain in place and active at Building 15. However, an approximate four (4) x twenty (20) x four (4) foot deep area will be excavated where liquids containing PCBs are reported to have been historically released into the adjacent soil. The depth of excavation at Building 15 will be to the top of the subsurface electrical conduits, or a maximum of four (4) feet below grade. Confirmatory samples will be collected to assess if any residual PCB contamination remains. All areas that are excavated will be backfilled and compacted, with regrading as described in the QAPP.

Hand-dug soil at Building 15 will be either directly placed into a roll-off box or drums, or will be temporarily placed on a sufficiently impermeable surface (6-mil or greater plastic sheeting) and then transferred into appropriate containment for off-site disposal.

It is noted that no alternate methods for chemical extraction or chemical analysis for site characterization will be used at the site.

c. *State and Local Notice.* KEMRON has obtained a Soil Boring Permit (Permit No. SB1700130) for the project. Development and approval of a DOE Erosion and Sediment Control Site Plan will be completed prior to commencement of excavation work. The Department of the Army is performing this work as the Lead Agency under CERCLA; no other permitting applies.

d. *Contingency Planning.* It is possible that the residual concentration of PCBs at one or more confirmation sample location may not achieve 1 ppm PCB concentration. This is possible at Building 15 where the excavation area has been prescribed based upon the retention of the transformer vault and proximate utilities, and at Building 1 or 88, where physical limitations such as the presence of a structural building, sidewalk or roadway may limit the feasible extent of soil removal. In these cases, the following contingencies apply.

- i) If analytical results of soil confirmatory sampling per in Subpart O: *Verification Sampling of Self-Implementing Cleanup* indicates that the post-cleanup soil PCB residual concentration exceeds 1 ppm, the Army may choose to authorize its contractor to conduct additional excavation and off-site disposal of soil in accordance with the methods and procedures identified in this cleanup plan until the residual PCB concentration in soil confirmatory samples do not exceed 1 ppm.
- ii) Alternately, should residual soil PCB concentrations at one or more location exceed the 1 ppm unrestricted use standard, the Army may

choose to restrict the use of the specific area through development and filing of a PCB Deed Notification and/or an Environmental Covenant that restricts use of the property in accordance with the standards of §761.61(a)(4) and §761.61(a)(8). Should the Army choose to exercise this contingency, the Army will notify USEPA, Region 3 and coordinate with USEPA regarding the filing of the deed notice and/or covenant.

**V.) §761.61(a)(3)(i)(E): Written Certification of Property Owner.**  
Please see Attachment 4.

WRAMC is requesting USEPA written concurrence to this self-implementing cleanup plan. If you have any questions, please contact Erin Mauer at 202-812-7398, and at [Erin.C.Mauer.Civ@mail.mil](mailto:Erin.C.Mauer.Civ@mail.mil).

Erin Mauer  
BRAC Division

Enclosure

**Figures**

Figure 1: Site Map: Locations of PCB Cleanup Locations

Figure 2: Building 15 Planned Excavation Extent

Figure 3: Building 1 Analytical Results, Planned Additional Delineation Sampling Locations and Anticipated Excavation Extent

Figure 4: Building 88 Analytical Results, Planned Additional Delineation Sampling Locations and Anticipated Excavation Extent

Figure 5: Self-Implementing Cleanup Plan Schedule

**Tables**

Table 1: KEMRON Delineation Data: January 2017

Table 2: Army Analytical Data Summary

**Attachments**

Attachment 1: Army-EPA Correspondence

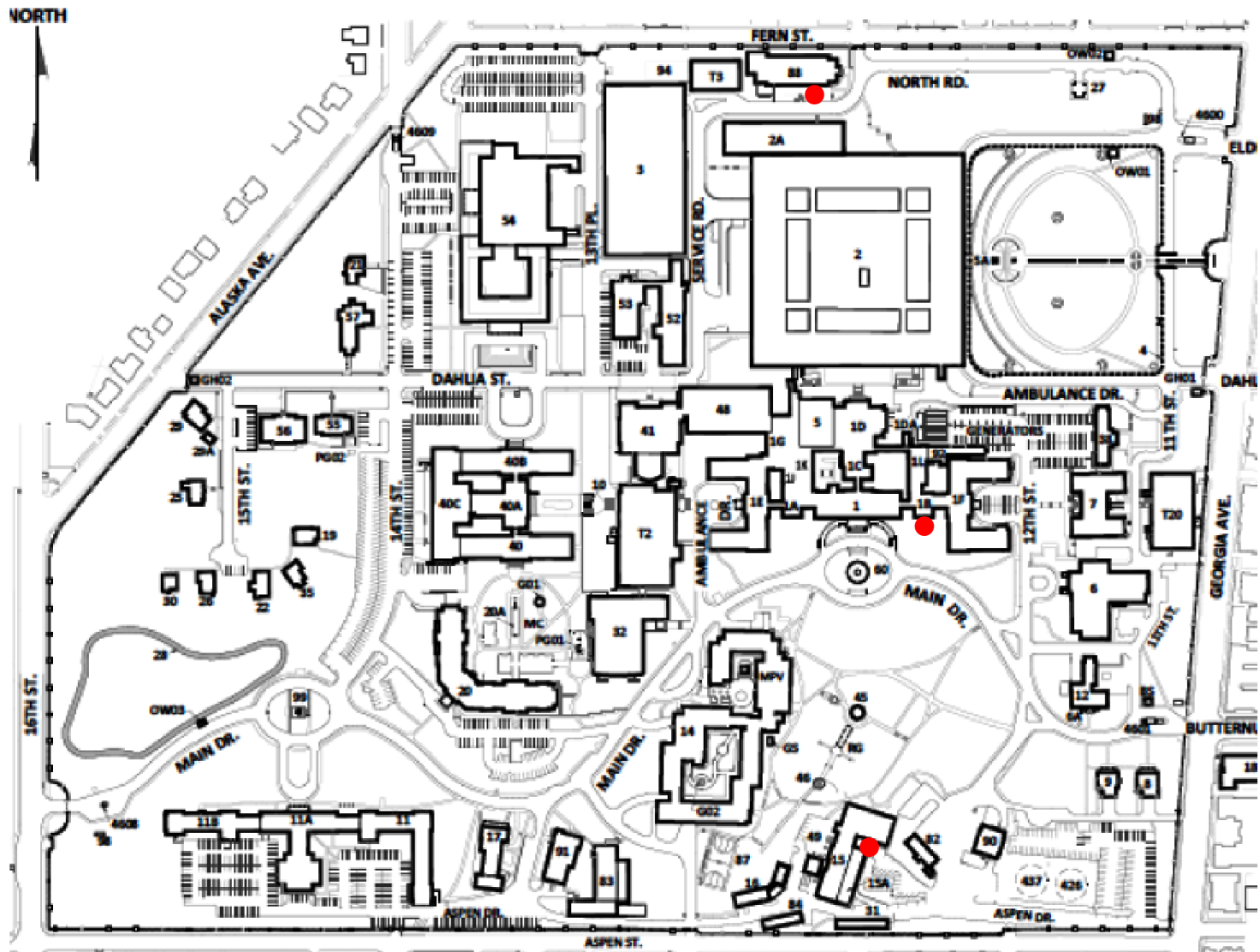
Attachment 2: KEMRON WRAMC UFP QAPP (CD-ROM)

Attachment 3: Laboratory Analytical Reports (CD-ROM)

Attachment 4: Army Written Certification per 40 CFR 761.61(a)(3)(i)(E)




## FIGURES



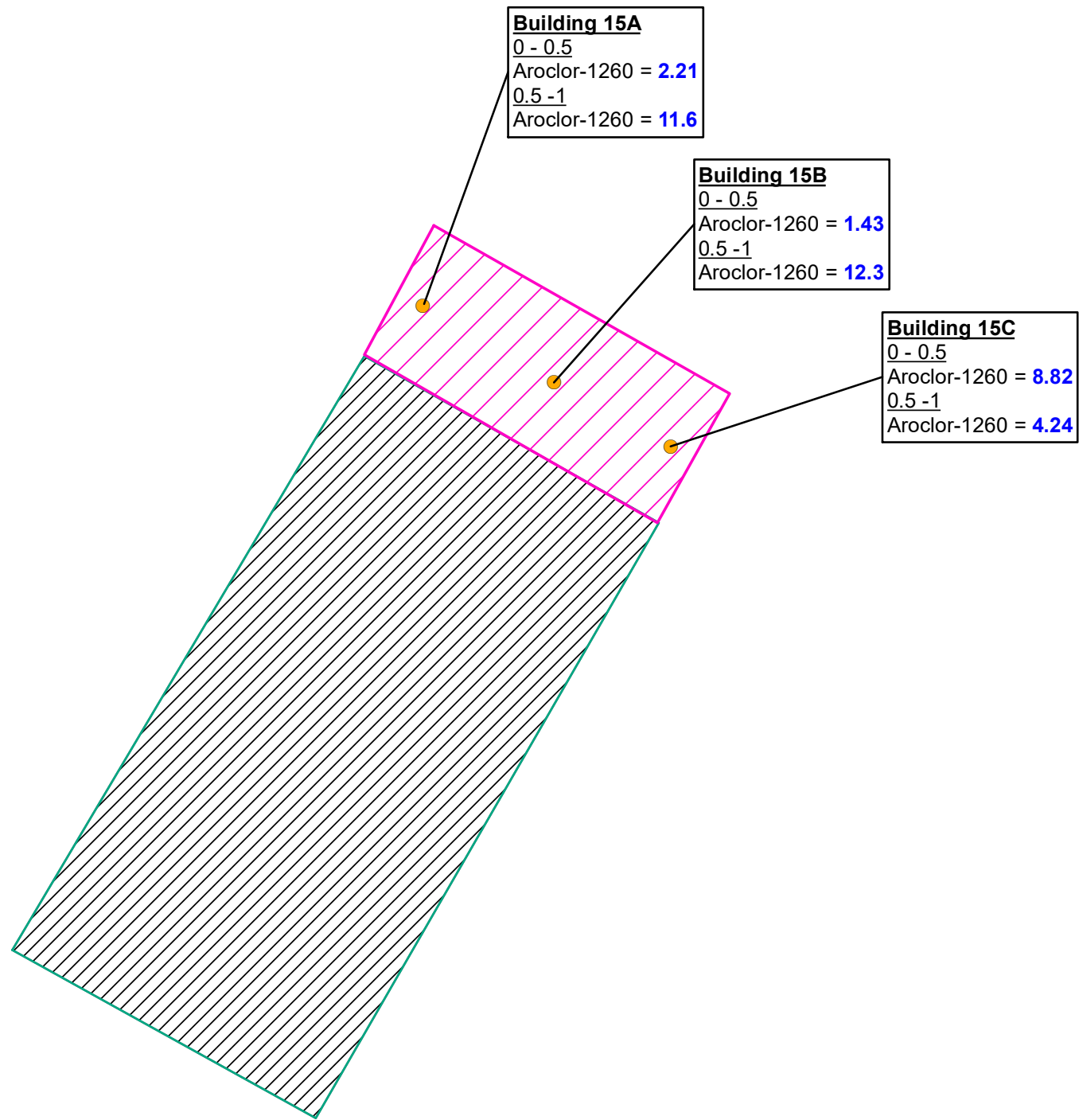
LEGEND

● TRANSFORMER VAULT LOCATIONS

NOT DRAWN TO SCALE

		KEMRON Environmental Services 2343-A State Route 821 Marietta, OH 45750	
PROJECT NO. WALTER REED		DRAWING DATE: 05/01/2017	
DESIGNED DRP	TRANSFORMER VAULT LOCATIONS		
DETAILED DRP			
CHECKED MKZ	LOCATION: WASHINGTON, DC	REVISION: 0	FIGURE: 1

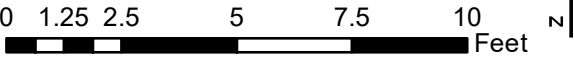
Document Path: G:\GIS\Walter Reed\MXD\Figure 2 - Building\_15\_LimitsOfExcavation.mxd



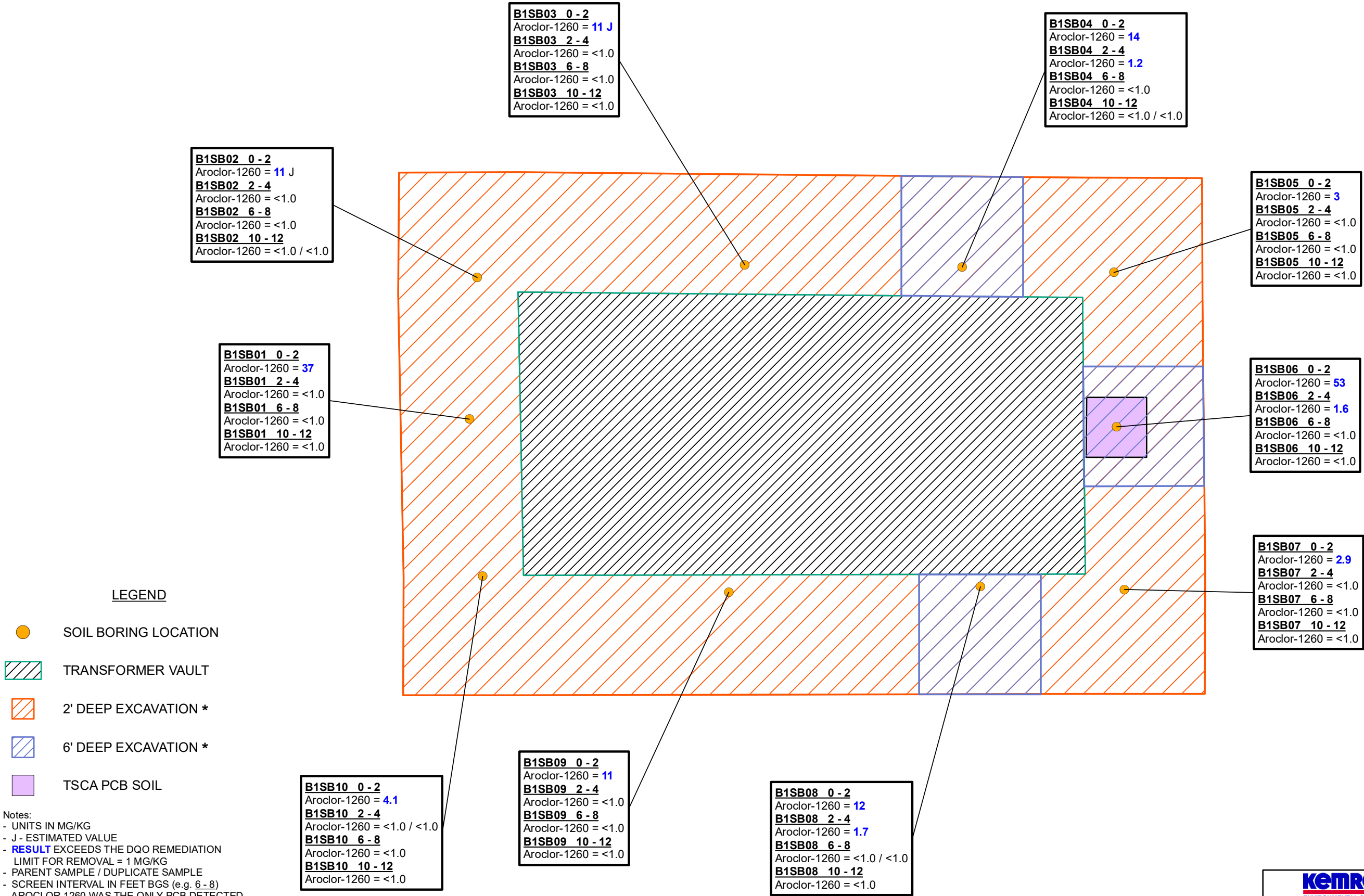
LEGEND

- SOIL BORING LOCATION
- TRANSFORMER VAULT
- 4' DEEP EXCAVATION

Notes:  
- UNITS IN MG/KG  
- J - ESTIMATED VALUE  
- **RESULT** EXCEEDS THE DQO REMEDIATION LIMIT FOR REMOVAL = 1 MG/KG  
- SCREEN INTERVAL IN FEET BGS (e.g. 6 - 8)  
- BUILDING 15 HISTORIC DATA FROM *FIGURE 3, FINAL REPORT ON THE INVESTIGATION OF PCBs AND VOCs IN SOIL/GROUNDWATER, BERS-WESTON SERVICES JVA, LLC., SEPTEMBER 1, 2016.*



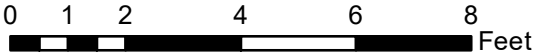
		KEMRON Environmental Services 2343-A State Route 821 Marietta, OH 45750	
PROJECT NO.	WALTER REED	DRAWING DATE:	05/01/2017
DESIGNED DRP	BUILDING 15 TRANSFORMER VAULT LIMITS OF EXCAVATION		
DETAILED DRP			
CHECKED MKZ	LOCATION: WASHINGTON, DC	REVISION: 0	FIGURE: 2



LEGEND

- SOIL BORING LOCATION
- TRANSFORMER VAULT
- 2' DEEP EXCAVATION \*
- 6' DEEP EXCAVATION \*
- TSCA PCB SOIL

Notes:  
- UNITS IN MG/KG  
- J - ESTIMATED VALUE  
- **RESULT** EXCEEDS THE DQO REMEDIATION LIMIT FOR REMOVAL = 1 MG/KG  
- PARENT SAMPLE / DUPLICATE SAMPLE  
- SCREEN INTERVAL IN FEET BGS (e.g. 6 - 8)  
- AROCLOR 1260 WAS THE ONLY PCB DETECTED.  
- \* MINIMUM EXCAVATION DEPTH ESTIMATED BASED UPON CURRENTLY AVAILABLE DATA. IF CONFIRMATORY SAMPLES INDICATE PCBs REMAIN IN EXCESS OF 1 PPM, ADDITIONAL SOIL WILL BE EXCAVATED IN ONE FOOT INCREMENTS UP TO A TOTAL DEPTH NOT TO EXCEED 6 FEET BGS.



<b>KEMRON</b> ENVIRONMENTAL SERVICES		KEMRON Environmental Services 2343-A State Route 821 Marietta, OH 45750	
PROJECT NO.	WALTER REED	DRAWING DATE:	07/26/2017
DESIGNED DRP	BUILDING 1 TRANSFORMER VAULT SOIL BORING LOCATIONS		
DETAILED DRP			
CHECKED BM	LOCATION: WASHINGTON, DC	REVISION: 0	FIGURE: 3



## TABLES

Table 1: KEMRON Delineation Data: January 2017

LocID	StartDepth	EndDepth	Aroclor1016	Aroclor1221	Aroclor1232	Aroclor1242	Aroclor1248	Aroclor1254	Aroclor1260
B1SB01	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	37
B1SB01	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB01	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB01	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB01	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB02	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11 J
B1SB02	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB02	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB02	10	12	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0
B1SB03	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11 J
B1SB03	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB03	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB03	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB04	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14
B1SB04	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
B1SB04	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB04	10	12	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0
B1SB05	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3
B1SB05	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB05	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB05	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB06	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	53
B1SB06	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6
B1SB06	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB06	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB07	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9
B1SB07	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB07	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB07	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB08	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12
B1SB08	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7
B1SB08	6	8	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0
B1SB08	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB09	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
B1SB09	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB09	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB09	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Table 1: KEMRON Delineation Data: January 2017

LocID	StartDepth	EndDepth	Aroclor1016	Aroclor1221	Aroclor1232	Aroclor1242	Aroclor1248	Aroclor1254	Aroclor1260
B1SB10	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1
B1SB10	2	4	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0	<1.0 / <1.0
B1SB10	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B1SB10	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB01	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12
B88SB01	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
B88SB01	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB01	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB02	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	110
B88SB02	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1
B88SB02	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6 / 1.2
B88SB02	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB03	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23
B88SB03	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
B88SB03	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB03	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB04	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.6 / 7
B88SB04	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6
B88SB04	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB04	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB05	0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB05	6	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B88SB05	10	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0



**Table 2: WRAMC Department of the Army  
Analytical Data Summary**

<b>Sample Location</b>	<b>Sample Type</b>	<b>Sample Identifier</b>	<b>Sample Date</b>	<b>Analytical Result</b>	<b>Units</b>	<b>Date Originally Submitted to EPA</b>
Blding 1	Porous Concrete Surface Wipe Sample	X01	2016	8,300	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 1	Porous Concrete Surface Wipe Sample	X02	2016	21,000	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 1	Porous Concrete Surface Wipe Sample	X03	2016	1,700	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 1	Porous Concrete Surface Wipe Sample	X04	2016	370	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 15	Soil	A-0-0.5 ft.	Jul-16	2,210	µg/Kg	9/13/2016
Blding 15	Soil	A-0.5-1 ft.	Jul-16	11,600	µg/Kg	9/13/2016
Blding 15	Soil	B-0-0.5 ft.	Jul-16	1,430	µg/Kg	9/13/2016
Blding 15	Soil	B-0.5-1 ft.	Jul-16	12,300	µg/Kg	9/13/2016
Blding 15	Soil	C-0-0.5 ft.	Jul-16	4,240	µg/Kg	9/13/2016
Blding 15	Soil	C-0.5-1 ft.	Jul-16	8,820	µg/Kg	9/13/2016
Blding 15	Soil	S-1 2.5 ft.	Aug-16	<57	µg/Kg	9/13/2016
Blding 15	Soil	S-1 4 ft.	Aug-16	64	µg/Kg	9/13/2016
Blding 15	Soil	S-2 2.5 ft.	Aug-16	420	µg/Kg	9/13/2016
Blding 15	Soil	S-2 4 ft.	Aug-16	670	µg/Kg	9/13/2016
Blding 88	Porous Concrete Surface Wipe Sample	RAR-W09	2006	6.7	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 88	Porous Concrete Surface Wipe Sample	RAR-W11	2006	9.4	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 88	Porous Concrete Surface Wipe Sample	RAR-W12	2006	8.7	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 88	Porous Concrete Surface Wipe Sample	RAR-W13	2006	12.4	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 88	Porous Concrete Surface Wipe Sample	RAR-W14	2006	10.1	µg/100 cm <sup>2</sup>	10/6/2016 and 9/13/2016
Blding 88	Soil	A-11.5-12 ft.	2016	<20.5	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	A-13.5-14 ft.	2016	<20.1	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	B-13-13.5 ft.	2016	<22	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	B-14-14.5 ft.	2016	<20.4	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	B-14-14.5D ft.	2016	<20.4	µg/Kg	10/6/2016 and 9/13/2016

**Table 2: WRAMC Department of the Army  
Analytical Data Summary**

<b>Sample Location</b>	<b>Sample Type</b>	<b>Sample Identifier</b>	<b>Sample Date</b>	<b>Analytical Result</b>	<b>Units</b>	<b>Date Originally Submitted to EPA</b>
Blding 88	Soil	C-11-11.5 ft.	2016	<18.9	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	C-14-14.5 ft.	2016	<19.8	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	D-13.5-14 ft.	2016	<19.4	µg/Kg	10/6/2016 and 9/13/2016
Blding 88	Soil	D-14-14.5 ft.	2016	287	µg/Kg	10/6/2016 and 9/13/2016
Notes: See Attachment 2 containing Army correspondence in which these analytical results were submitted to USEPA, Region 3.						
Building 88 sample ID B-14-14.5D ft. was collected as a duplicate sample.						

**ATTACHMENT 1**  
**ARMY-EPA CORRESPONDENCE**



**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

Base Realignment and Closure Division

**OCT 06 2016**

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

Dear Ms. Bunker:

The purpose of this letter is to provide the Environmental Protection Agency with notification of a Polychlorinated Biphenyls (PCB) Self-Implemented Clean-up action at an abandoned transformer vault on the southeastern side of Building 1 at the former Walter Reed Army Medical Center (WRAMC), located at 6900 Georgia Ave, NW Washington DC. See figure 1 for the vault's location. The removal date of the transformer within the vault is unknown. The area around Building 1 will be transferred to the District of Columbia Local Redevelopment Authority for mixed institutional and corporate reuse.


In 2016, WRAMC collected four wipe samples on the floor of this transformer vault. All four sample results were above the TSCA allowable limit of 10  $\mu\text{g}/100\text{ cm}^2$ . Wipe samples were collected in accordance with the standard wipe test definition described in 40 CFR 761.3 and 761.123. See Table 1 below for the results.

Table 1. Abandoned Transformer Vault Floor Wipe Sample Results

Sample Number	Result ( $\mu\text{g}/100\text{ cm}^2$ )
X01	8,300
X02	21,000
X03	17,000
X04	370

Due to the elevated PCBs levels in this transformer vault, WRAMC will remove the vault and surrounding contaminated soil. The surrounding soil will be excavated to levels of less than 1 part per million PCBs. The excavation will be backfilled using clean soil. During the removal, pre and post remediation sampling requirements will be met (IAW 40 CFR 761.61 (a)(2) and (6). All PCB remediation waste generated from this activity will be disposed of through a TSCA landfill.

WRAMC is requesting concurrence to the above actions. If you have any questions, please contact Erin Mauer at 202-812-7398, and at [Erin.C.Mauer.Civ@mail.mil](mailto:Erin.C.Mauer.Civ@mail.mil).

A handwritten signature in black ink, appearing to read "Markus Craig". The signature is fluid and cursive, with the first name "Markus" and last name "Craig" clearly distinguishable.

Markus Craig  
Program Manager, BRAC Division

Enclosure

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**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

Base Realignment and Closure Division

**SEP 13 2016**

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

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In 2016, WRAMC collected four wipe samples on the floor of this transformer vault. All four sample results were above the TSCA allowable limit of  $10 \mu\text{g}/100 \text{ cm}^2$ . Wipe samples were collected in accordance with the standard wipe test definition described in 40 CFR 761.3 and 761.123. See Table 1 below for the results.

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A handwritten signature in black ink, appearing to read "Markus Craig". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

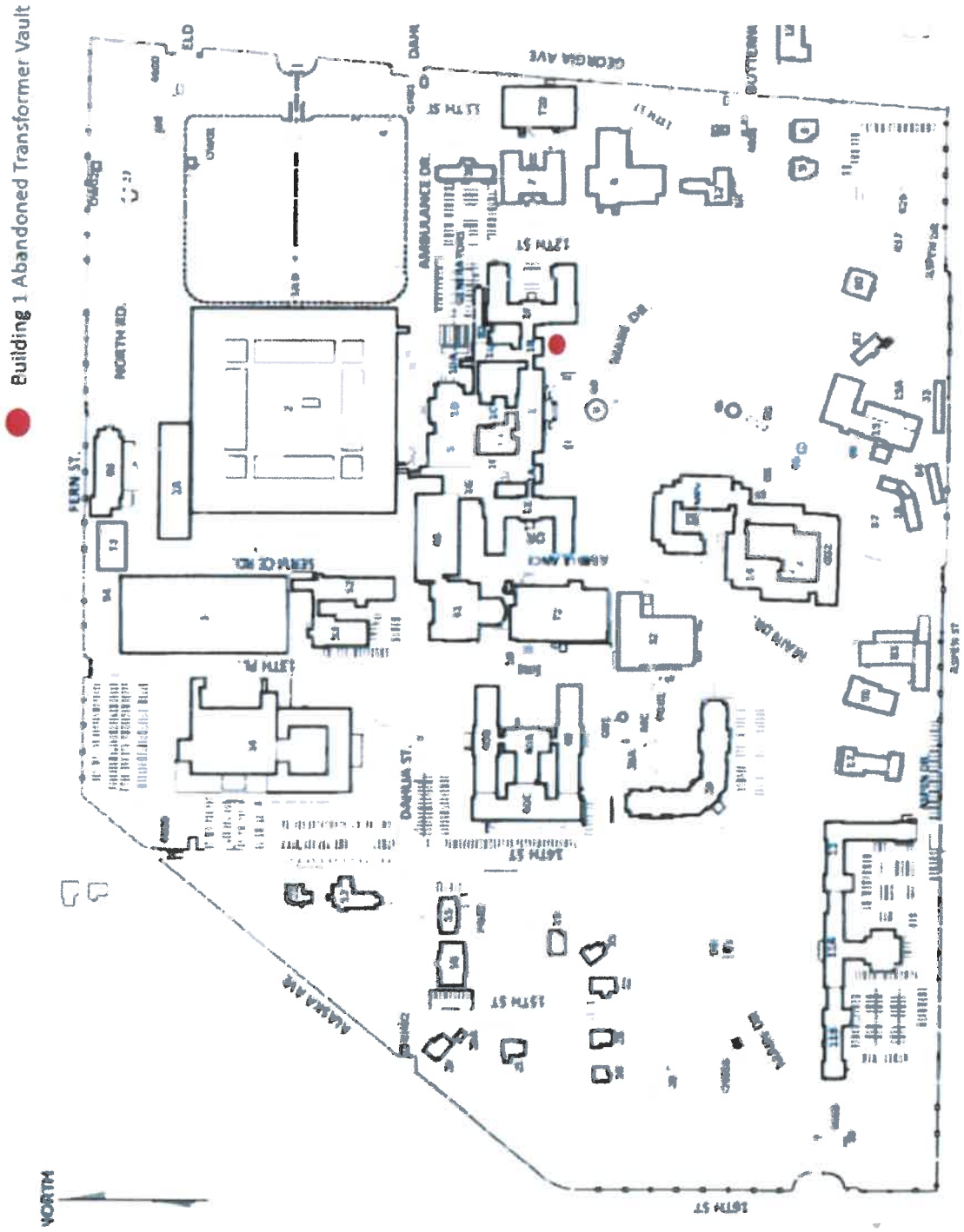
Markus Craig  
Program Manager, BRAC Division

Enclosure



Enclosure

Figure 1: Site Map





**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**800 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

REPLY TO  
ATTENTION OF

Base Realignment and Closure Division

**SEP 13 2016**

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

Dear Ms. Bunker:

The purpose of this letter is to provide the Environmental Protection Agency with notification of a Polychlorinated Biphenyls (PCB) Self-Implemented Clean-up action at the Building 15 transformer vault at the former Walter Reed Army Medical Center (WRAMC), located at 6900 Georgia Ave. NW Washington DC. See figure 1 for Building 15's location. The transformer within the vault is an active non-PCB containing with a manufacture date of June 1993. The area around Building 15 will be transferred to the District of Columbia Local Redevelopment Authority for reuse.

During 2016, it was discovered that this vault had a pump discharge pipe, which discharged water from the vault to the ground directly in front of the vault. In order to determine if a release occurred, the Caretaker Environmental Office (CEO) collected soil samples from the areas in front of the vault in July 2016.

In July 2016, soil samples were collected and analyzed for PCBs in three locations, at two depths per location. See Table 1 below for the locations, depths and results. All results are above Toxic Substance Control Act (TSCA) allowable limits of 1 mg/kg (1000 µg/ Kg).

Table 1. July soil sample results

Location	Depth (Feet below grade)	PCBs (µg/ Kg)
A	0 - 0.5	2,210
A	0.5 - 1	11,600
B	0 - 0.5	1,430
B	0.5 - 1	12,300
C	0 - 0.5	4,240
C	0.5 - 1	8,820

As a follow-up to determine the extent of the contamination, in August 2016, additional soil samples were collected at greater depths. See Table 2 below for August's sample results.

Three out of four samples had detectable levels of PCBs, but all are less than 1 part per million (PPM), or 1,000 µg/ Kg. The sample results indicate that contamination is contained within 2.5 feet below grade.

Table 2. August Soil Sample Results

Sample Location	Sample Depth (Feet)	Result (µg/Kg)
S-1	2.5	<57
S-1	4	64
S-2	2.5	420
S-2	4	670

Due to the presence PCBs in the surrounding soil and the future land reuse change, WRAMC will remove the contaminated soil surrounding the vault. The soil will be excavated to levels of less than 1 PPM PCBs for unrestrictive use. The excavation will be backfilled using clean soil.

WRAMC is requesting concurrence to the above action. If you have any questions, please contact Erin Mauer at 202-812-7398, and at [Erin.C.Mauer.Civ@mail.mil](mailto:Erin.C.Mauer.Civ@mail.mil).

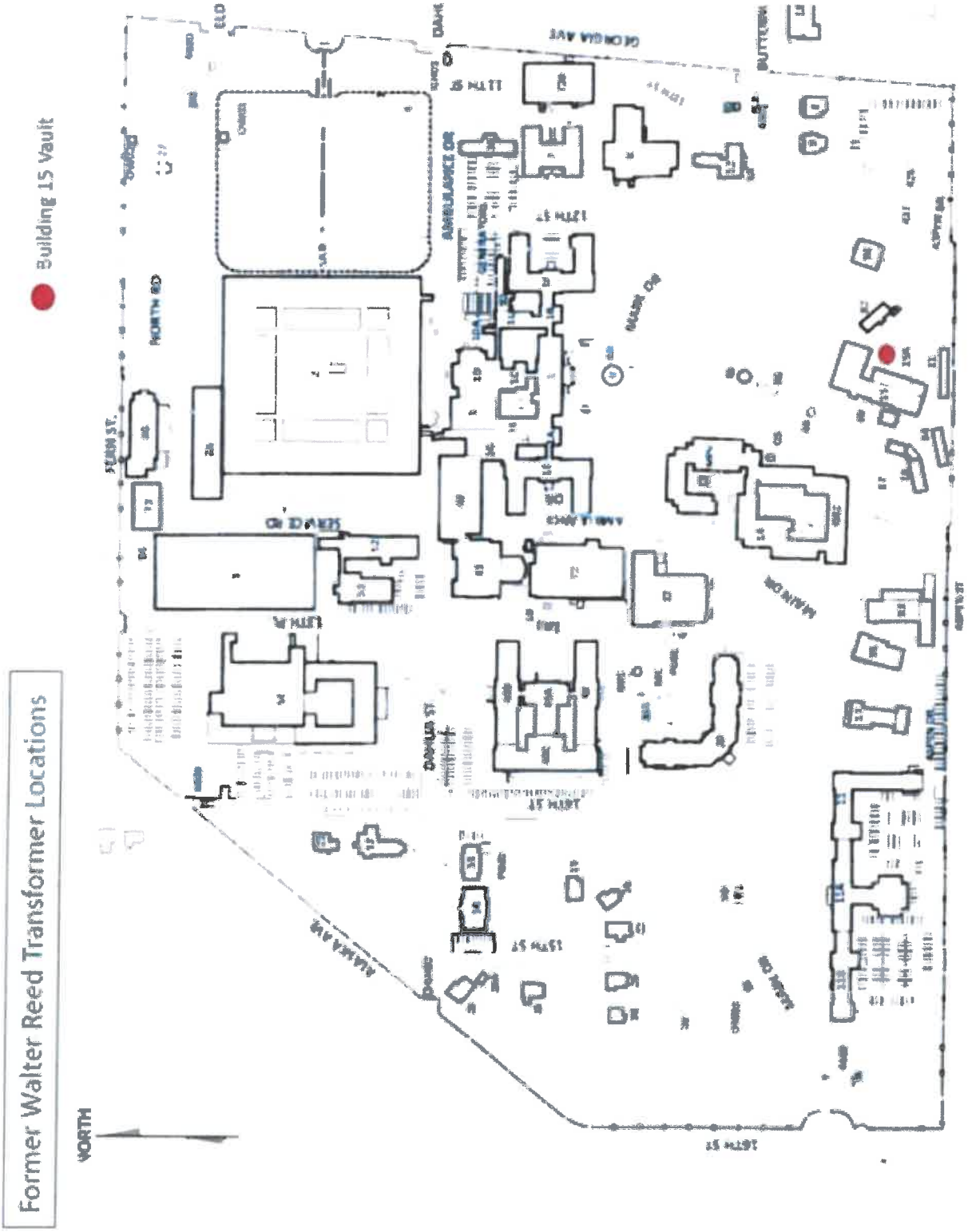


Markus Craig  
Program Manager, BRAC Division

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# Enclosure

Figure 1: Site Map





**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

REPLY TO  
ATTENTION OF

Base Realignment and Closure Division

**OCT 06 2016**

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

Dear Ms. Bunker:

The purpose of this letter is to provide the Environmental Protection Agency with notification of a Polychlorinated Biphenyls (PCB) Self-Implemented Clean-up action at the Building 88 transformer vault at the former Walter Reed Army Medical Center (WRAMC), located at 6900 Georgia Ave, NW Washington DC. See figure 1 for Building 88's location. The transformer within the vault is non-PCB containing with a manufacture date of 1992, and is no longer active. The transformer was drained of its dielectric fluid. WRAMC assumes the current transformer replaced a PCB containing transformer. There is no data available for the former transformer. The area around Building 88 will be transferred to the District of Columbia Local Redevelopment Authority for residential reuse.

During a sampling event completed in 2006, the transformer vault at Building 88 was sampled for PCBs using standard wipe methodology. The results indicated that PCB surface contamination existed at levels greater than 10  $\mu\text{g}/100\text{ cm}^2$ . See Table 1 below for the 2006 wipe sample results.

Table 1. Building 88 Vault Wipe Samples (2006)

<b>Sample Number</b>	<b>Result (<math>\mu\text{g}/100\text{ cm}^2</math>)</b>
RAR-W09	6.7
RAR-W11	9.4
RAR-W12	8.7
RAR-W13	12.4
RAR-W14	10.1

In 2016, Building 88's vault was identified to contain a drain during a transformer inspection. Due to the drain, WRAMC conducted soil sampling around the vault to determine if there was a presence of PCBs in the soil. See Table 2 for results.

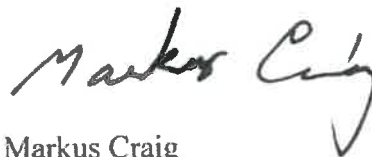
Table 2. Building 88 Soil Results

Sample Location	Sample Depth (Feet)	Result (µg/Kg)
A	11.5 - 12	<20.5
A	13.5 - 14	<20.1
B	13 - 13.5	<22
B	14 - 14.5	<20.4
B	14 - 14.5D	<20.4*
C	11 - 11.5	<18.9
C	14 - 14.5	<19.8
D	13.5 - 14	<19.4
D	14 - 14.5	287

\*Duplicate Sample

Due to the presence PCBs in the surrounding soil and the future land reuse change, WRAMC will remove the transformer, vault and surrounding contaminated soil. The surrounding soil will be excavated to levels of less than 1 part per million PCBs. The excavation will be backfilled using clean soil. During the removal, pre and post remediation sampling requirements will be met (IAW 40 CFR 761.61 (a)(2) and (6). All PCB remediation waste generated from this activity will be disposed of through a TSCA landfill.

WRAMC is requesting concurrence to the above actions. If you have any questions, please contact Erin Mauer at 202-812-7398, and at [Erin.C.Mauer.Civ@mail.mil](mailto:Erin.C.Mauer.Civ@mail.mil).



Markus Craig  
Program Manager, BRAC Division

Enclosure



Enclosure

Figure 1: Site Map





**DEPARTMENT OF THE ARMY**  
**OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT**  
**600 ARMY PENTAGON**  
**WASHINGTON, DC 20310-0600**

REPLY TO  
ATTENTION OF

Base Realignment and Closure Division

**SEP 13 2016**

Environmental Protection Agency  
Office of Enforcement, Compliance, and Environmental Justice  
Attn: Kelly Bunker  
Region 3 PCB Coordinator  
1650 Arch Street  
Philadelphia, Pennsylvania, 19103

Dear Ms. Bunker:

The purpose of this letter is to provide the Environmental Protection Agency with notification of a Polychlorinated Biphenyls (PCB) Self-Implemented Clean-up action at the Building 88 transformer vault at the former Walter Reed Army Medical Center (WRAMC), located at 6900 Georgia Ave, NW Washington DC. See figure 1 for Building 88's location. The transformer within the vault is non-PCB containing with a manufacture date of 1992, and is no longer active. The transformer was drained of its dielectric fluid. WRAMC assumes the current transformer replaced a PCB containing transformer. There is no data available for the former transformer. The area around Building 88 will be transferred to the District of Columbia Local Redevelopment Authority for residential reuse.

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RAR-W12	8.7
RAR-W13	12.4
RAR-W14	10.1

In 2016, Building 88's vault was identified to contain a drain during a transformer inspection. Due to the drain, WRAMC conducted soil sampling around the vault to determine if there was a presence of PCBs in the soil. See Table 2 for results.



Table 2. Building 88 Soil Results

Sample Location	Sample Depth (Feet)	Result (µg/Kg)
A	11.5 - 12	<20.5
A	13.5 - 14	<20.1
B	13 - 13.5	<22
B	14 - 14.5	<20.4
B	14 - 14.5D	<20.4*
C	11 - 11.5	<18.9
C	14 - 14.5	<19.8
D	13.5 - 14	<19.4
D	14 - 14.5	287

\*Duplicate Sample

Due to the presence PCBs in the surrounding soil and the future land reuse change, WRAMC will remove the transformer, vault and surrounding contaminated soil. The surrounding soil will be excavated to levels of less than 1 part per million PCBs. The excavation will be backfilled using clean soil.

WRAMC is requesting concurrence to the above actions. If you have any questions, please contact Erin Mauer at 202-812-7398, and at [Erin.C.Mauer.Civ@mail.mil](mailto:Erin.C.Mauer.Civ@mail.mil).



Markus Craig  
Program Manager, BRAC Division

Enclosure

**ATTACHMENT 2**  
**KEMRON WRAMC UFP QAPP**  
**(ON CD-ROM)**

**ATTACHMENT 3**  
**LABORATORY ANALYTICAL REPORTS**  
**(ON CD-ROM)**

**ATTACHMENT 4**

**ARMY WRITTEN CERTIFICATION PER 40 CFR 761.61(a)(3)(i)(E)**

**Attachment 4: Written Certification per 40 CFR 761.61(a)(3)(E):**

I certify that the Self-Implementing Clean-up Plan contained in this document will meet the following requirements:

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the following location and are available for USEPA inspection:

Erin Mauer  
BRAC Environmental Program Manager  
OACSIM-ODB  
2530 Crystal Drive, 5th Floor  
Arlington, VA 22202  
703-545-2504

---

Name (Printed)

---

Signature

---

Title

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Date